ODA II Owner's Manual

DVI/HDMI + RS-232 + Audio Fiber Optic
Extension Module

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Package Contents

Please make sure all of the following items are included in the package;

1) ODA II-Tx / ODA II-Rx
2) DC 12V Power Supply Unit with a power cord
3) User Manual

Operation and Reliability Specification

1. Operating Environment
   Temperature: 50F ~ 104F (10℃~ 40℃)
   Humidity: 10% ~ 80%
   Altitude: 3,000m Max.

2. Transit Environment
   Temperature: -13F ~ 140F (-25℃~ 60℃)
   Humidity: 5% ~ 95%
   Altitude: 15,000m Max.

3. Storage Environment
   Temperature: -4F ~ -49F (-20℃~ 45℃)
   Humidity: 5% ~ 95%
   Altitude: 3,000m Max.

4. Reliability
   MTBF: 90% at over 50,000 hours aging test
   - In compliance with LCD Monitor reliability test standard

General Specification

Purelink's new ODA II Tx / Rx is a standalone fiber optic signal extension system capable of transmitting DVI/HDMI, 3.5mm Stereo Audio and RS-232 signal over two strand fiber optic cable. In addition, the fiber type can be either single mode or multimode. There is distinctive difference in distance depends on the type of fiber cable being used at the time. For instance, multimode can be extended up to 500m at WUXGA/ 1080p@60Hz, but the distance becomes greater when using a single mode fiber (can be extended up to 2000m at WUXGA / 1080p@60Hz)

By having a flexible fiber solution, ODA II provides a convenient and affordable solution for transmitting highest quality video and audio signal in various applications.

Item	Description
Model	ODA II Tx/Rx
Input Signal	DVI/HDMI Stereo Audio (3.5mm mini jack) RS-232
Output Signal	DVI/HDMI Stereo Audio (3.5mm mini jack) RS-232
Supporting video graphic resolution	PC Mode : VGA ~ WUXGA DTV Mode: 480 ~ 1920*1080P
Max. Distance	1920 x 1200 @60Hz or 1080p up to 500m(1,640 ft / Multimode) / 2000m (6,561 ft @ Single mode)
Connector Configuration	DC Power Jack DVI 29 Pin Female LC Fiber Connector 2 core 3.5mm STEREO Jack RS-232C : 3 Port Phoenix connector
Conformation	DDWG DVI1.0 HDMI V1.3 HDCP
Power Consumption	DC 12V, 4.1A, 8 Watts(Max 13W)
Dimension	4.3'(W) x 3.1'(D) x 1.6' (H) (Inch)
Weight	TX, RX 0.9 lbs (per unit)

Main Features

1. High Quality Picture - No Signal Loss and Digital Noise Free

ODA II Tx / Rx is designed to deliver the highest quality picture preserving the native resolutions of the digital/analog video sources, or analog stereo audio, or RS-232 communication without any signal loss. At the same time, the digital noises that may affect the picture quality will be eliminated. Due to the nature of the digital signals and passing through multiple stages of connection when using fiber optic extender, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video signal quality. ODA II Tx / Rx equipped with Noise cancellation and error correction logic that enhances HDMI video and audio signals over long distance.

2. Signal Amplification for signal reliability and long distance signal transmission

12V power adapter supplies adequate power to amplify the video signal from the video source and it also has a built-in signal repeater to support long distance.

3. Compact and durable design

ODA II Tx / Rx come in compact and robust design.

4. Support Both Single mode and Multimode Fiber

multimode can be extended up to 500m at WUXGA/ 1080p@60Hz, but the distance becomes greater when using a single mode fiber (can be extended up to 2000m at WUXGA / 1080p@60Hz)

5. AUTO EDID management

The definition of AUTO EDID management is a way of saving EDID of a monitor into EEPROM in the transmitter module before connecting to any video source. ODA II transmitter has 14 different pre-programmed EDID data that can be conveniently selected by end-user, if an external EDID doesn't need to be saved. Saving/Emulating display's EDID in the transmitter module enhances reliability and compatibility with various displays.

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.6. HDCP (High-bandwidth Digital Content Protection) Compliant

Our ODA II Tx / Rx is fully HDCP compliant. Many video sources such as DVD players and Satellite/Cable Receivers are HDCP encrypted. For these video sources to be displayed correctly, HDCP compliant devices (e.g., TV, DVI Switch, distribution amplifier) are required.

Installation and Connection Instructions

Installation Instruction

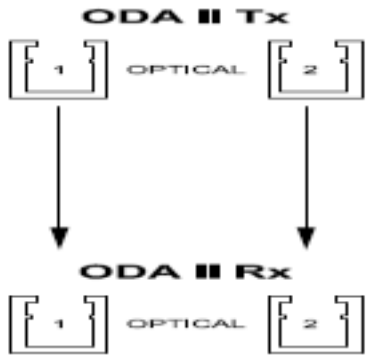
1. Turn off the video source and monitor before connecting any cable.
2. Connect DVI-D, VGA, Fiber, CAT5, and RS-232 cable.
3. Connect 12V DC power adapter to both transmitter and receiver module.
4. Turn on the monitor
5. Turn on the video source

How to connect fiber cable between ODA II Tx and ODA II Rx

Please refer to the connection diagram below

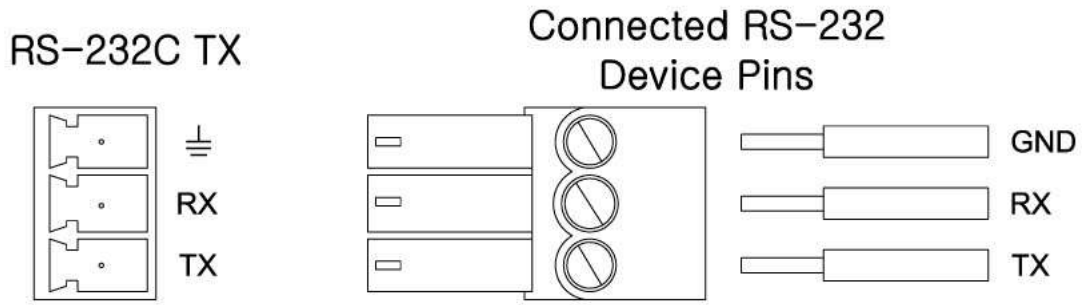
Tx optical port# 1 ---------- > Rx optical port# 1

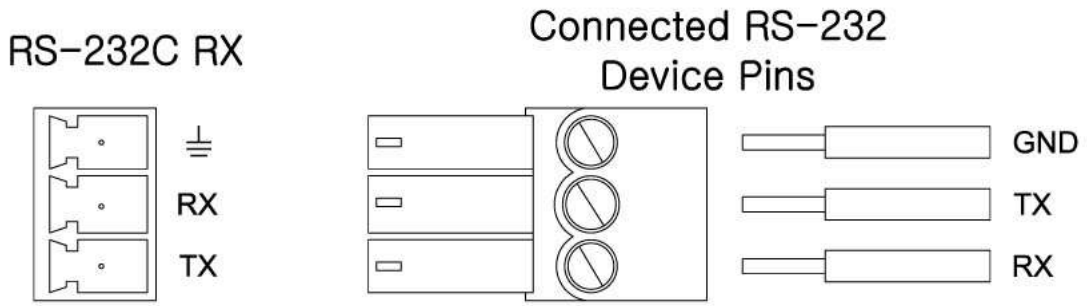
Tx optical port# 2 ---------- > Rx optical port# 2



RS-232 Connection

Set up connection in the order illustrated below before use.



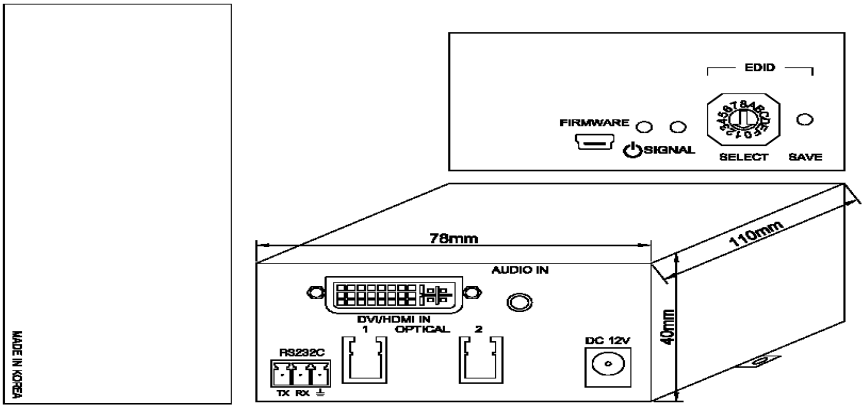


Product Exterior

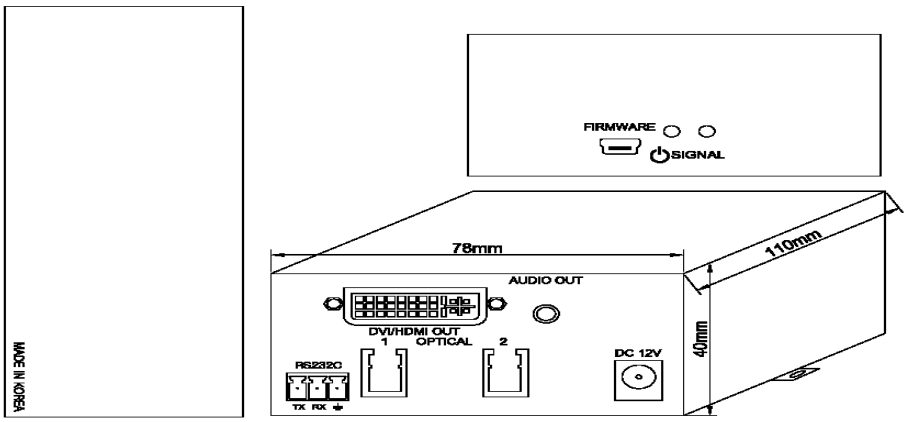
Product Dimension (W* D *H): 4.3 ‘’ x 3.1 ‘’ x 1.6’’ (inch)

Weight: 0.9 lbs

ODA II Tx : Transmitter Module



ODA II Rx : Receiver Module



*Front Panel

: Power LED

SIGNAL : Status LED
SELECT : EDID Rotary Switch (Tx only)
SAVE : EDID Save Button (Tx only)
FIRMWARE : Software upgrade

*Rear Panel

DVI/HDMI IN, OUT : DVI-D/HDMI port
Audio IN,OUT : 3.5 mm Stereo Audio port
RS232C : RS-232C (Phoenix connector)
DC 12V : Power Socket

How to use the ODA II extender

Internal EDID DATA

Select EDID data of your choice from the list below by adjusting MODE switch.

* MODE List

0- External EDID

1-800x600 60Hz , 2-1024x768 60Hz , 3-1280x768 60Hz ,4-1280x1024 60Hz

5-1360x768 60Hz ,6-1366x768 60Hz , 7-1400x1050 60Hz , 8-1600x900 60Hz

9-1600x1200 60Hz , A-1680x1050 60Hz ,B-1920x1200 60Hz , C-HD1080i 60Hz

D-HD1080p (2CH) , E-HD1080p(Multi)

Saving external EDID DATA:

Connect display (monitor or display) to the ODA II transmitter. Set your rotatory switch to " 0 ", then press the EDID S/W button. Transmitter will read and save the EDID data on the internal EEPRom.

Technical Specification

Data Transfer Speed:	Up to 2.25 Gbps (Single Link)
Frequency Range:	25 ~ 165 MHz
Supporting Display Resolutions:	Up to WUXGA (1920X1200)@60Hz / 1080p
I/O Signal Standard:	Digital RGB, VGA, Stereo Audio (3.5mm), RS-232 (Max Baud Rate: 115200 bps
Max Distance:	1,000m (3,300ft) at 1920x1200@60Hz / 1080p 1,500m (5,000ft) at 1600x1200@60Hz / 1080i
Optical Source:	850 nm Vcsel
Optical Cable Specification:	Single / Multimode 50/125 or, 62.5/125
Input Ports:	DVI-D Female 29P / LC Receptacles x 2 cores / 3.5mm mini jack / RS-232
Output Ports:	DVI-D Female 29P / LC Receptacles x 2 cores / 3.5mm mini jack / RS-232
Power Consumption:	8 Watts(Max 13W)
Power Rating:	12V DC / 3A

Warranty

2 (two) Year Warranty

Dtrovision warrants this ODA II Tx / Rx fiber optic extender to be free from defects in workmanship and materials, under normal use and service, for a period of two (2) year from the date of purchase from Dtrovision or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, Dtrovision shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of Dtrovision.

Replacement products may be new or reconditioned.

Any replaced or repaired product or part has a ninety (90) day warranty or the reminder of the initial warranty period, whichever is longer.

Dtrovision shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to Dtrovision for repair under warranty or not.

Warranty Limitation and Exclusion

Dtrovision shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by Dtrovision or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product is intended.

FCC/CE Statement

This device complies with part 15 of FCC Rules and EN 55022/55024/61000-3 for CE certification. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must not accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 and 2 of FCC Rules and EN 55022/55024/61000-3 for CE certification. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and. if not installed and used in accordance with the instruction guide, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult a service representative for help.

Properly shielded and grounded cables and connectors must be used in order to comply with FCC/CE emission limits. Changes or modifications not expressly approved by the party responsible for compliance could void the user s authority to operate the equipment.

UL Statement

This device has completed a UL Commercial Inspection and Testing Services for the multimode HDMI cable complied with VW-1 under UL 758. It is validated by the UL file number SV2038 and project number 04CA05353.